

April 5, 2018

Ms. Chrissy Bartovich
Director-Environmental
Minnesota Ore Operations
United States Steel Corporation
P.O. Box 417
Mountain Iron, MN 55768

Re: U.S. Steel's Use Attainability Analysis/Use and Value Determination and Site Specific Standard Requests

Ms. Bartovich:

As discussed in our March 6 phone call, the Minnesota Pollution Control Agency (MPCA) is providing this letter to document additional information needs and the path forward for U.S. Steel's Use Attainability Analysis/Use and Value Determination (UAA/UVD) and Site Specific Standard Requests for reaches near U.S. Steel's Minntac Tailings Basin.

The MPCA understands that at this time U.S. Steel plans to submit revised/complete petitions requesting the removal of certain designated uses through a UAA/UVD and site specific standards as follows:

Reach	Uses to Remove	SSS Requested
Timber Creek	3C, 4A	4B
Dark River	1B, 3C, 4A	4B
Dark Lake	3C, 4A	4B
Sand River	3C, 4A ¹	4B
Admiral Lake	3C, 4A	4B
Twin Lakes	3C, 4A ¹	4B

¹The MPCA understands that U.S. Steel does not intend to alter the wild rice use. The path forward to remove the 4A use in wild rice waters may be affected by the outcome of the MPCA's wild rice rulemaking.

The table above does not include wetlands surrounding the tailings basin, although they were included in U.S. Steel's prioritization list for removal of Class 3C and 4A, and a SSS for 4B. The situation for wetlands is different than for the streams and lakes. These wetlands do not have use class designations of 3C, 4A or 4B. Wetlands that are not listed in Minn. R. 7050.0470 are designated as classes 2D, 3D, 4C, 5 and 6 (see Minn. R. 7050.0425). Therefore, the uses altered would need to be 3D and 4C for these wetlands; while Class 4C incorporates the Class 4A and Class 4B standards, it is a separate use class. Removing the 3D use is relatively straightforward, but the 4C use is complicated because of the way it ties the 4A and 4B standards into one use class (see Minn. R. 7050.0224, subp. 4). Therefore, the removal of the 4A uses, while retaining the 4B uses (which are necessary for wildlife protection), is not possible without changing the use class. MPCA is currently considering the options for addressing this, and would like to discuss this issue further with U.S. Steel.

Both removal of a designated use (through UAA/UVD) and changing a standard (through SSS) require certain demonstrations as laid out in state and federal regulations. We recommend that U.S. Steel consult 40 CFR 131.10(k) and *Water Quality Standards Regulatory Revisions*; Final Rule, published August 21, 2015 - 80 FR 50126 for information on conducting a Use and Value Determination, which is the appropriate demonstration for removing or revising a non-101(a)(2) use. We recommend you consult <https://www.pca.state.mn.us/water/site-specific-water-quality-standards> for information on site-specific standards.

In particular, we note that both removal of a designated use (through UAA/UVD) or changing a standard (through SSS) requires the approval of EPA. EPA requires states to make certain demonstrations, which include, but are not necessarily limited to, the following items:

- That all other standards, including narrative standards, will be met in the reaches that are the subject of the petitions;
- That the removal of the use or the change to the standard will not prevent the attainment and maintenance of the water quality standards of downstream waters, per 131.10(b) and Minn. R. 7050.0155;
 - Having different standards for adjoining reaches does not necessarily show that downstream standards will not be met, but MPCA must be able to demonstrate that Minntac's effluent, under the conditions assumed if the petitions are successful, will not cause or contribute to an exceedance of water quality standards in downstream waters;
- When removing a use, that the specified use is not an existing use (on or after November 28, 1975) in the reach;
- To develop a site-specific standard for wildlife: That the sensitivities of the species are different than those assumed when the statewide standard was developed or that the specifics of the site are such that the relevant pollutants are less bioavailable or less toxic.

In order to be successful, U.S. Steel should ensure that the data and documentation provided support the MPCA's ability to make the above demonstrations. If the data does not support the demonstration, the MPCA would not be able to proceed with the removal of the use or a site-specific standard and submit it to EPA for approval.

U.S. Steel has already provided information to the MPCA, and the rest of this letter discusses the additional data and demonstrations that MPCA believes will be necessary to support the petition. MPCA requests additional information for the following specific areas, to support the demonstrations described above:

- Biological Monitoring – Biological monitoring must be consistent with the MPCA's standard operating procedure and the information in the most recent *Guidance Manual for Assessing the Quality of Minnesota Surface Waters for Determination of Impairment: 305(b) Report and 303(d) List*, particularly Appendix F. MPCA staff would like to work with you to cooperatively develop a study design.

At this time, we believe the information listed below will be needed. The study design and exact locations should be discussed further to ensure that the data collected will satisfy the UAA and SSS needs. In addition, in order to ensure that the data collected accurately assesses the biology of the

relevant reaches, MPCA would like to work with U.S. Steel to ensure that MPCA's standard procedures and methods are being followed. This may include some training for U.S. Steel's biological survey contractor, or collaborative visits to some of the sites by MPCA biological monitoring staff and U.S. Steel's biological survey contractor. We will work with you to develop a plan for this collaboration so that all sampling can occur during August, our recommended timeframe for biological sampling.

- Additional biological monitoring on the Dark River and Timber Creek;
- Biological monitoring should be performed at reference sites outside the influence of the tailings basin. Two possible locations are McNiven Creek – MPCA sampling station 05RN061 (to compare to Timber Creek) and Sturgeon River, East Branch – MPCA sampling station 05RN034 (to compare to the Dark River). The MPCA intends to sample 05RN034 this summer. It may also be useful to sample a site that can serve as a reference for the cold water section of the Dark River.
- If possible, a biological monitoring station on the Sand River should be established at the furthest upstream site where the site conditions allow to assess whether aquatic life is being impacted.
- Additional Pollutant Monitoring
 - Monthly monitoring of specific conductivity, TDS, sulfate, bicarbonate and hardness in the upper Dark River (SD001 and D-1), Dark Lake, Dark River trout reach, Timber Creek, headwaters of Sand River and Admiral Lake.
- Demonstration of protection of other standards and downstream uses
 - Consideration of the Class 3B use on the trout reach of the Dark River, particularly the hardness standard - this has not been included in the information received by MPCA to date;
 - Data for specific conductivity, TDS, hardness and bicarbonate, on downstream waters where the Class 3 and 4 designated uses would remain unchanged, to demonstrate that the current standards are met;
 - TDS and sulfate information demonstrating the proposed site specific standards would be met in all requested waters, including the headwaters of Sand River, Admiral Lake, Timber Creek, and Dark Lake;
 - TDS, specific conductivity, bicarbonate and sulfate information demonstrating the current 4C standards and the proposed site specific standards would be met in representative wetland locations (identified below);
 - Information demonstrating that the drinking water use in groundwater would still be protected if the Class 1B use is removed from the trout reach of the Dark River;
 - Information demonstrating that applicable Class 2D, Class 5, and Class 6 uses, as well as the narrative in Minn. R. 7050.0186, Subpart 1, are met in wetlands surrounding the tailings basin. MPCA proposes three representative locations, one on each of the west, north, and east sides of the basin. Possible locations could include, as referenced from the 2017 Tailings Basin Status Report (February 2018), Inspection points 1, 16, and 29; and
 - Information demonstrating that the Class 2 narrative standard (Minn. R. 7050.0150, subp. 3) is being met in all surface waters affected by the tailings basin.

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Given the discussions and changes in approach, MPCA believes that it makes sense for U.S. Steel to prepare a cohesive petition package that includes a full demonstration of the appropriateness of the removal of the use and the site-specific standard with appropriate/required supporting data. Once we receive that package, including the information outlined above, we will be able to proceed with evaluating the petition for completeness and further processing.

Sincerely,

A handwritten signature in black ink that reads "Todd Biewen". The signature is written in a cursive style. Below the name, the word "for" is written in a smaller, less distinct script.

Catherine Neuschler, Manager
Water Assessment and Environmental Information Section
Environmental Analysis and Outcomes Division

CN:cbg